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SECRET

Overview of DOD Intelligence and Intelligence-Related Activities (S)

In addition to the National Activities funded in the NFIP, there are certain intelligence-related activities funded in the Defense budget. Congressional intelligence review committees have taken a leading role in requiring presentations and review of these intelligence-related activities and have at times been highly critical of the management of them. The process of defining these activities and improving their management is a continuing one and several plans have been and will be drafted for the Congress. Although these reviews have not resulted in any ceilings or overall controls on intelligence-related activities as a separate budget category, a major question is brought into focus by these reviews, namely: How should intelligence-related activities be evaluated: against other activities in the NFIP or intelligence-related category, against other activities funded in the same appropriation, or against other activities supporting the same military missions? As an example, the surface-towed array surveillance system (SURTASS) is procured in the Navy shipbuilding program. It competes for funding priority, both with carriers, frigates, and other ships, but also with other methods for detecting submarines. Ideally, SURTASS should be traded off against (1) other intelligence-gathering systems, in general, (2) other intelligence systems for detecting submarines, (3) other anti-submarine warfare systems, and (4) other ships, in general. In practice, however, various aspects of the tradeoff process tend to dominate during various phases of the program/budget cycle. The Congressional tendency to emphasize intelligence-related funding levels unrelated to military mission accomplishment should be resisted. However, because both Congress and DOD are attempting to improve their review of these activities, it is desirable to highlight these activities in this review. (S)

There is a wide variety of defense activities like SURTASS, which produce information about the enemy that is processed and then may be potentially useful to a variety of users. Such combat surveillance systems include the following:

- Radars for: long-range detection of aircraft, monitoring surface forces, and detecting and tracking space objects;

- Signal intelligence systems for detecting, locating, and collecting against enemy radios and radars on the ground, in the air, and at sea (e.g., COMINT and ELINT sensors on numerous aircraft, naval vessels and trucks);

- Radiation intelligence systems for detecting nuclear explosions (e.g., GAMMA and x-ray sensors mounted on various satellites);

- Imaging systems for monitoring surface forces (e.g., aircraft cameras, electro-optical and/or infrared sensors);

- Human intelligence collection for observing ground forces (e.g., observation aircraft and helicopter units, prisoner-of-war interrogation teams, artillery sound and flash-ranging teams, and unattended ground sensors);

- Acoustic intelligence systems to detect and track submarines (e.g., the Sound Surveillance System -- SOSUS and the Surface Towed-Array Surveillance System -- SURTASS);

- Infrared collection systems to detect ballistic missiles, aircraft and space objects (e.g., the Defense Support Program -- DSP, and possible new systems);

- Processing and dissemination equipment and personnel associated with each type of sensor, along with multiple-source processing (e.g., WS430B imagery processing center, the transportable ground intercept facility (for COMINT), possible Battlefield Evaluation and Target Acquisition (BETA) type centers). (S)

Intelligence-related activities also involve supplementary NFIP funding in order to support missions of interest to DOD. A few other DOD intelligence activities do not provide combat intelligence per se but are a reflection of historical funding allocations. Included in this category is operating support to various NFIP program offices, nuclear test monitoring research and development efforts, procurement and exploitation of foreign military equipment, and various intelligence staffs needed principally to support peacetime operations and force planning. (S)

Funding for DOD intelligence activities includes the operation, maintenance and training of existing active and reserve forces, the procurement of new or replacement equipment and facilities, and research, development and testing of new sensors, platforms, and processing centers. Resource levels are now estimated by OMB to be about $5-6 billion annually, as follows:

	1979	1981	1983
	(in billions of dollars)		
Research and development			
Procurement and military construction			
Operations			
TOTAL			

1981 Spring Planning Review
DOD Intelligence

Issue #1: Theater Battlefield Surveillance

Statement of Issue

What mix of combat surveillance systems is needed to support theatre air and ground operations? (S)

Background

Combat intelligence needed to support ongoing theatre air and ground operations comes from three generic sources - combat forces and weapons systems, near-real-time national intelligence systems, and combat surveillance systems which detect and monitor the enemy in wartime. DOD plans call for the indefinite retention of most existing combat surveillance systems and the acquisition of a number of new systems, primarily for data collection. (S)

Alternatives

#1. Retain most existing collection systems. Expand surveillance capabilities by investing in airborne and ground-based sensors in the early 1980s and improved processing and dissemination capabilities in the mid to late 1980s. (S)

#2. Retain many existing collection systems. Expand surveillance capabilities by investing in improved information processing and dissemination in the early 1980s along with selected improvements in standoff aircraft and artillery targeting systems for NATO. (S)

Analysis

The major issues associated with these programs are:

- Processing and dissemination - the extent to which collected data can and will be rapidly and reliably evaluated, communicated to, and absorbed by many tactical users. Communications and processing have historically presented serious problems both within and among U.S. air and

ground units. Communications difficulties alone have been a major factor preventing timely collection tasking and/or information dissemination. The more severe environments expected in future conflicts will further compound these problems, as will the multinational nature of the forces involved (e.g., NATO). Problems would include the untimely processing of COMINT, aircraft photography, and radar imagery, the lack of any modern system for receipt and display of data from multiple sources, the frequent lack of reliable or timely voice, data, or message communications within ground forces and (especially) between ground and air forces, and the lack of effective procedures for collection system tasking across organizational lines (both within and across the Services). All of these problems become more serious where Allied nations and personnel are involved because of different languages, defense procedures, and security systems. These types of problems have both technical and administrative origins; they are correctable but, due to the lack of any joint service architecture for tactical intelligence, will probably remain a serious impediment for some time. A multinational architecture, although also needed, is further away. (S)

The DOD plan is to develop a joint architecture over the next few years, along with the technology for more advanced processing and dissemination systems. After requisite testing and redesign, improved processing and dissemination systems would become available in the field in the mid-1980s and beyond. (S)

Alternative #2 emphasizes the earlier completion of a joint architecture and the procurement of simpler, yet improved, processing and dissemination equipment for use in the early 1980s. Many improvements would also arise from the adoption of new, virtually no-cost, procedures for joint force collection tasking and information routing which could be rapidly implemented. (S)

- Collection - the extent to which enemy targets need to be detected by multiple collection systems. There are relatively few types of high-priority intelligence targets in theatre war (e.g., tanks, aircraft, missile units). Yet because these targets are important and of interest to many different types of combat units, a multitude of surveillance systems are or will be available to detect them. From a theatre point of view, major present collection deficiencies are all weather detection of low-flying aircraft and the precise targeting of rear echelon ground forces to permit engagement by friendly tactical air forces and ground force artillery. Some improvements to correct these problems are in order. Some system redundancy provides a needed backup in bad

weather, jamming and deception situations and can compensate for wartime attrition. Numerous highly redundant collection systems, however, provide diminishing marginal returns and are expensive, especially when dedicated aircraft are required. Experience has shown that collection capabilities can easily outstrip users abilities to assimilate and/or exploit data. The utility of further across-the-board increases in collection is especially questionable when users with an improved intelligence processing and dissemination network can have ready access to a body of already collected data on higher priority targets. (S)

The DOD plan is to continue existing collection systems (including several hundred aircraft, e.g., RF4, OV1, RV1, SR71, E3, RC135, RU21...) and invest in new systems and sensors, many of which involve aircraft, so as to provide many air and ground units with their own stand-alone collection capabilities. Investments will be made in 11 different radar systems (6 Army, 5 Air Force), 7 different ELINT systems (2 Army, 5 Air Force), 5 different COMINT systems (3 Army, 2 Air Force), and 4 different infrared collection platforms. Included are such systems as the U.S. and NATO E3 radar, a TR1 aircraft with up to four different sensor suites, a helicopter radar surveillance system (UH60 SOTAS), an imaging remotely piloted vehicle (RPV), and truck-mounted line-of-sight COMINT, ELINT and radar systems. (S)

Alternative #2 would begin phasing out less effective existing systems such as the OV1 light aircraft and would emphasize development and procurement of standoff, multiple sensor TR1 and NATO E3 aircraft to support joint force and multinational operations, and improved ground-based radars and ELINT systems and an imaging RPV to support U.S. artillery targeting. Additional collection expansions (SOTAS and some radar and infrared improvements) would be deferred. (S)

Alternative #1

Accelerate investments in collection in the early 1980s so as to provide relatively responsive and reliable collection systems to different types and echelons of U.S. forces. Improved processing and dissemination to multiple users will not be heavily relied upon but improvements will be fielded in the mid-1980s. This investment will support a reasonable level of U.S. surveillance capability against numerically superior Warsaw Pact forces through the principle of force multiplication. (S)

Alternative #2

Accelerate improvements in processing and dissemination in the early 1980s, and defer most major investments in collection, providing only the most critical improvements. Begin phasing out less effective current systems. This will provide intelligence improvements for all tactical forces, both U.S. and Allied, while also freeing several hundred million dollars in 1981 to improve combat forces. (S)

Implementation of OMB Recommendation

In the DOD policy letter, the Secretary of Defense should be requested to develop a theatre battlefield surveillance program that improves joint force collection tasking and information dissemination and curtails duplication in collection; a joint service architecture and improved assessments of the military utility of intelligence improvements should be encouraged. (S)

OMB Issues

#1 Overall Level of NFIP funding for FY81-83

1. + $150, for inflation, telemetry, + other initiatives; 5% real in FY81
2. Hold constant; allows 2% real net of extra inflation
3. - $100, constant real FY81-83

#2 Adjustments for Soviet Strategic and Post Y.P. Forces

1. Plus for SALT, above existing guidance
2. Hold Constant (hope increase and decrease net out)
3. Cut, Decreases by Congress will exceed increases

#3 Reliance on Shuttle (timetable and capabilities)

1. Reduce Reliance, buy more ELV backups
2. ↓
3. ↓
4. Increasing reliance + Shuttle optimization in new spacecraft design

#4 Response to President's interest in improved Non-Communist Word Intelligence

1. + $100 (2000 persons?); Hope State and NFIP come up with the "creative solution" using these funds
2. Hold constant -- DCI + State put a plan together

IRA

↓

#5 (IB?) Direction + Scope of DOD IR/Radar satellite program.

1. Pursue with two ways (2 new IR + 2 radars)
2. Upgrade DSP + Improved, Cut back IR to 1 (Shuttle optimized); Radar to 1 multi-mission type.

#6 (IIIC?) Level + Mix of Combat Surveillance (non-NFIP) to support Theater Air-Ground Operations.

1. Pursue with two ways (buy new sensor families for early 1980s; improve processing + dissemination for late 1980s)
2. Emphasize Processing + Dissemination of what's now being collected; improve onboard collection; "Fully exploit" national assets ($2 Billion out FY80-83)